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PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America  
NEWS 2 "Ask CAS" for self-help around the clock  
NEWS 3 SEP 09 ACD predicted properties enhanced in REGISTRY/ZREGISTRY  
NEWS 4 OCT 03 MATHDI removed from STN  
NEWS 5 OCT 04 CA/CAPLUS-Canadian Intellectual Property Office (CIPO) added  
to core patent offices  
NEWS 6 OCT 13 New CAS Information Use Policies Effective October 17, 2005  
NEWS 7 OCT 17 STN(R) AnaVist(TM), Version 1.01, allows the export/download  
of CAPLUS documents for use in third-party analysis and  
visualization tools  
NEWS 8 OCT 27 Free KWIC format extended in full-text databases  
NEWS 9 OCT 27 DIOGENES content streamlined  
NEWS 10 OCT 27 EPFULL enhanced with additional content  
NEWS 11 NOV 14 CA/CAPLUS - Expanded coverage of German academic research  
NEWS 12 NOV 30 REGISTRY/ZREGISTRY on STN(R) enhanced with experimental  
spectral property data  
NEWS 13 DEC 05 CASREACT(R) - Over 10 million reactions available  
  
NEWS EXPRESS DECEMBER 02 CURRENT VERSION FOR WINDOWS IS V8.01,  
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),  
AND CURRENT DISCOVER FILE IS DATED 02 DECEMBER 2005.  
V8.0 USERS CAN OBTAIN THE UPGRADE TO V8.01 AT  
<http://download.cas.org/express/v8.0-Discover/>  
  
NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS INTER General Internet Information  
NEWS LOGIN Welcome Banner and News Items  
NEWS PHONE Direct Dial and Telecommunication Network Access to STN  
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that  
specific topic.

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research. Use for software development or design or implementation  
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\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 14:45:38 ON 05 DEC 2005

=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 14:46:00 ON 05 DEC 2005  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
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Property values tagged with IC are from the ZIC/VINITI data file  
provided by InfoChem.

STRUCTURE FILE UPDATES: 4 DEC 2005 HIGHEST RN 869277-23-6  
DICTIONARY FILE UPDATES: 4 DEC 2005 HIGHEST RN 869277-23-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

\*\*\*\*\*  
\*  
\* The CA roles and document type information have been removed from \*  
\* the IDE default display format and the ED field has been added, \*  
\* effective March 20, 2005. A new display format, IDERL, is now \*  
\* available and contains the CA role and document type information. \*  
\*  
\*\*\*\*\*

Structure search iteration limits have been increased. See HELP SLIMITS  
for details.

REGISTRY includes numerically searchable data for experimental and  
predicted properties as well as tags indicating availability of  
experimental property data in the original document. For information  
on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> E "RLIP76"/CN 25

E1	1	RLGS1930 PROTEIN (HUMAN CLONE DNA84920 GENE UNQ1930)/CN
E2	1	RLH 033/CN
E3	0 -->	RLIP76/CN
E4	1	RLIP76 PROTEIN (HUMAN)/CN
E5	1	RLK PROTEIN TYROSINE KINASE/CN
E6	1	RLK TYROSINE KINASE/CN
E7	1	RLK5 RECEPTOR-LIKE PROTEIN KINASE/CN
E8	1	RLL1 PROTEINS/CN
E9	1	RLLV1833 PROTEIN (HUMAN CLONE DNA92219 GENE UNQ1833)/CN
E10	1	RLLV422 PROTEIN (HUMAN CLONE DNA44196 GENE UNQ422)/CN
E11	1	RLM/CN
E12	1	RLM 20/CN
E13	1	RLM 20, POLYMER WITH 1,2-ETHANEDIOL AND 2,6-NAPHTHALENEDICARBOXYLIC ACID, BLOCK/CN
E14	1	RLM 20, POLYMER WITH 1,4-BENZENEDICARBOXYLIC ACID AND 1,2-ETHANEDIOL, BLOCK/CN
E15	1	RLM 20, POLYMER WITH 1,4-BENZENEDICARBOXYLIC ACID, 1,2-ETHANEDIOL AND 2,6-NAPHTHALENEDICARBOXYLIC ACID, BLOCK/CN
E16	1	RLM 20, POLYMER WITH CARBONIC DICHLORIDE AND 4,4'-(1-METHYLETHYLIDENE)BIS(PHENOL), BLOCK/CN
E17	1	RLN3 PROTEIN (HUMAN CLONE DNA171372 GENE UNQ6188)/CN
E18	1	RLNI6974 PROTEIN (HUMAN CLONE DNA179765 GENE UNQ6974)/CN
E19	1	RLO 6078/CN
E20	1	RLOC PROTEIN (CAMPYLOBACTER JEJUNI RM1221 STRAIN RM1221)/CN
E21	1	RLOG PROTEIN (CAMPYLOBACTER JEJUNI RM1221 STRAIN RM1221)/CN
E22	1	RLP 024/CN

E23 1 RLP 068/CN  
E24 1 RLP 2078/CN  
E25 1 RLP-1 (RAB-LIKE SMALL GTP-BINDING PROTEIN 1) (HUMAN CLONE  
PHC069)/CN

=> S E4

L1 1 "RLIP76 PROTEIN (HUMAN)"/CN

=> DIS L1 1 SQIDE

THE ESTIMATED COST FOR THIS REQUEST IS 6.15 U.S. DOLLARS  
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:N  
REQUEST CANCELED

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

5.03

5.24

FILE 'CAPLUS' ENTERED AT 14:46:43 ON 05 DEC 2005

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FILE COVERS 1907 - 5 Dec 2005 VOL 143 ISS 24

FILE LAST UPDATED: 4 Dec 2005 (20051204/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> s l1

L2 6 L1

=> d proteoliposome

'PROTEOLIPOSOME' IS NOT A VALID FORMAT FOR FILE 'CAPLUS'

The following are valid formats:

ABS ----- GI and AB  
ALL ----- BIB, AB, IND, RE  
APPS ----- AI, PRAI  
BIB ----- AN, plus Bibliographic Data and PI table (default)  
CAN ----- List of CA abstract numbers without answer numbers  
CBIB ----- AN, plus Compressed Bibliographic Data  
DALL ----- ALL, delimited (end of each field identified)  
DMAX ----- MAX, delimited for post-processing  
FAM ----- AN, PI and PRAI in table, plus Patent Family data  
FBIB ----- AN, BIB, plus Patent FAM  
IND ----- Indexing data  
IPC ----- International Patent Classifications  
MAX ----- ALL, plus Patent FAM, RE  
PATS ----- PI, SO

SAM ----- CC, SX, TI, ST, IT  
 SCAN ----- CC, SX, TI, ST, IT (random display, no answer numbers;  
               SCAN must be entered on the same line as the DISPLAY,  
               e.g., D SCAN or DISPLAY SCAN)  
 STD ----- BIB, IPC, and NCL  
  
 IABS ----- ABS, indented with text labels  
 IALL ----- ALL, indented with text labels  
 IBIB ----- BIB, indented with text labels  
 IMAX ----- MAX, indented with text labels  
 ISTD ----- STD, indented with text labels  
  
 OBIB ----- AN, plus Bibliographic Data (original)  
 OIBIB ----- OBIB, indented with text labels  
  
 SBIB ----- BIB, no citations  
 SIBIB ----- IBIB, no citations  
  
 HIT ----- Fields containing hit terms  
 HITIND ----- IC, ICA, ICI, NCL, CC and index field (ST and IT)  
               containing hit terms  
 HITRN ----- HIT RN and its text modification  
 HITSTR ----- HIT RN, its text modification, its CA index name, and  
               its structure diagram  
 HITSEQ ----- HIT RN, its text modification, its CA index name, its  
               structure diagram, plus NTE and SEQ fields  
 FHITSTR ----- First HIT RN, its text modification, its CA index name, and  
               its structure diagram  
 FHITSEQ ----- First HIT RN, its text modification, its CA index name, its  
               structure diagram, plus NTE and SEQ fields  
 KWIC ----- Hit term plus 20 words on either side  
 OCC ----- Number of occurrence of hit term and field in which it occurs

To display a particular field or fields, enter the display field  
 codes. For a list of the display field codes, enter HELP DFIELDS at  
 an arrow prompt (=>). Examples of formats include: TI; TI,AU; BIB,ST;  
 TI,IND; TI,SO. You may specify the format fields in any order and the  
 information will be displayed in the same order as the format  
 specification.

All of the formats (except for SAM, SCAN, HIT, HITIND, HITRN, HITSTR,  
 FHITSTR, HITSEQ, FHITSEQ, KWIC, and OCC) may be used with DISPLAY ACC  
 to view a specified Accession Number.

ENTER DISPLAY FORMAT (BIB):end

```

=> s ?lipsome
L3          42 ?LIPSOME

=> s ?liposome
L4          33727 ?LIPOSOME

=> s liposom?
L5          48589 LIPOSOM?

=> s l4 or l5
L6          48775 L4 OR L5

=> s RLIP76 or RALBP1 or (DNP-SG) or RIP1 or RLIP1
          56 RLIP76
          66 RALBP1
          7168 DNP
          89 DNPS
          7216 DNP
          (DNP OR DNPS)
  
```

6155 SG  
766 SGS  
6779 SG  
    (SG OR SGS)  
107 DNP-SG  
    (DNP(W) SG)  
117 RIP1  
2 RLIP1  
L7 321 RLIP76 OR RALBP1 OR (DNP-SG) OR RIP1 OR RLIP1

=> s 17 and 16  
L8 10 L7 AND L6

=> s 18 not py>2002  
3312022 PY>2002  
L9 4 L8 NOT PY>2002

=> d ibib 1-4

L9 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2001:586352 CAPLUS  
DOCUMENT NUMBER: 135:300135  
TITLE: Purification and functional reconstitution of intact  
ral-binding GTPase activating protein, RLIP76  
, in artificial liposomes  
AUTHOR(S): Singhal, Sharad S.; Singhal, Jyotsana; Cheng, JiZhong;  
Pikula, Slawomir; Sharma, Rajendra; Zimniak, Piotr;  
Awasthi, Yogesh C.; Awasthi, Sanjay  
CORPORATE SOURCE: Department of Chemistry and Biochemistry, The  
University of Texas at Arlington, Arlington, TX,  
76019-0065, USA  
SOURCE: Acta Biochimica Polonica (2001), 48(2), 551-562  
CODEN: ABPLAF; ISSN: 0001-527X  
PUBLISHER: Polish Biochemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2000:257178 CAPLUS  
DOCUMENT NUMBER: 133:171724  
TITLE: Glutathione-linked pathways in drug resistance.  
Characterization and functional reconstitution of  
human erythrocyte glutathione-conjugate transporter  
AUTHOR(S): Awasthi, Y. C.; Singhal, S. S.; Zimniak, P.; Piper, J.  
T.; Pikula, S.; Bendorowicz-Pikula, J.; Lin, J. T.;  
Srivastava, S. K.; Singh, S. V.; Awasthi, S.  
CORPORATE SOURCE: Department of Human Biological Chemistry and Genetics,  
Department of Internal Medicine, The University of  
Texas Medical Branch, Galveston, TX, 77555-1067, USA  
SOURCE: Clinical Chemistry and Enzymology Communications  
(2000), 8(4-6), 431-448  
CODEN: CCECEY; ISSN: 0892-2187  
PUBLISHER: Harwood Academic Publishers  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1999:182219 CAPLUS  
DOCUMENT NUMBER: 131:27425  
TITLE: ATP-Dependent Colchicine Transport by Human

Erythrocyte Glutathione Conjugate Transporter  
 AUTHOR(S): Awasthi, Sanjay; Singhal, Sharad S.; Pandya, Utpal;  
 Gopal, Sanjiv; Zimniak, Piotr; Singh, Shivendra V.;  
 Awasthi, Yogesh C.  
 CORPORATE SOURCE: Department of Internal Medicine, The University of  
 Texas Medical Branch at Galveston, Galveston, TX,  
 77555-1067, USA  
 SOURCE: Toxicology and Applied Pharmacology (1999), 155(3),  
 215-226  
 CODEN: TXAPA9; ISSN: 0041-008X  
 PUBLISHER: Academic Press  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1998:249072 CAPLUS  
 DOCUMENT NUMBER: 129:51304  
 TITLE: ATP-dependent human erythrocyte glutathione-conjugate  
 transporter. II. functional reconstitution of  
 transport activity  
 AUTHOR(S): Awasthi, Sanjay; Singhal, Sharad S.; Pikula, Slawomir;  
 Piper, John T.; Srivastava, Sanjay K.; Torman, Robert  
 T.; Bandorowicz-Pikula, Joanna; Lin, James T.; Singh,  
 Shivendra V.; Zimniak, Piotr; Awasthi, Yogesh C.  
 CORPORATE SOURCE: Departments of Internal Medicines, The University of  
 Texas Medical Branch, Galveston, TX, USA  
 SOURCE: Biochemistry (1998), 37(15), 5239-5248  
 CODEN: BICHAW; ISSN: 0006-2960  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ab 1

L9 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN  
 AB We have recently shown that RLIP76, a ral-binding GTPase  
 activating protein, mediates ATP-dependent transport of  
 glutathione-conjugates (GS-E) and doxorubicin (DOX) (S. Awasthi et al.,  
 Biochem. 39, 9327, 2000). Transport function of RLIP76 was  
 found to be intact despite considerable proteolytic fragmentation in  
 preps. used for those studies, suggesting either that the residual intact  
 RLIP76 was responsible for transport activity, or that the  
 transport activity could be reconstituted by fragments of RLIP76  
 . If the former were true, intact RLIP76 would have a much  
 higher specific activity for ATP-hydrolysis than the fragmented protein.  
 We have addressed this question by comparing transport properties of  
 recombinant RLIP76 and human erythrocyte membrane RLIP76  
 purified in buffers treated with either 100 or 500  $\mu$ M serine protease  
 inhibitor, PMSF. The purity and identity of recombinant and human  
 erythrocyte RLIP76 was established by SDS/PAGE and Western-blot  
 anal. These studies confirmed the origin of the 38 kDa protein,  
 previously referred to as DNP-SG ATPase, from  
 RLIP76. Higher PMSF concentration resulted in lower yield of the 38 kDa  
 band and higher yield of intact RLIP76 from both human and  
 recombinant source. In contrast, the substrate-stimulated ATPase activity  
 in presence of DNP-SG, doxorubicin, daunorubicin, or  
 colchicine were unaffected by increased PMSF; similarly, ATP-dependent  
 transport of doxorubicin in proteoliposomes reconstituted with  
 RLIP76 was unaffected by higher PMSF. These results indicated

that limited proteolysis by serine proteases does not abrogate the transport function of RLIP76. Comparison of transport kinetics for daunorubicin between recombinant vs. human erythrocyte RLIP76 revealed higher specific activity of transport for tissue purified RLIP76, indicating that addnl. factors present in tissue purified RLIP76 can modulate its transport activity.

=> d ab 2

L9 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN  
AB The glutathione-conjugate transporter, S-(2,4-Dinitrophenyl) glutathione (DNP-SG) ATPase described by the authors previously was purified from human erythrocytes. DNP-SG ATPase showed a band at 38 kDa in SDS gels which was not recognized by the monoclonal antibodies against multidrug resistance associated protein (MRP). A saturable photoaffinity labeling of the 38 kDa band was observed with 8-azido ATP ( $K_d = 2 \mu M$ ). The transporter catalyzed ATP hydrolysis which was stimulated in the presence of glutathione-conjugate of 1-chloro-2,4-dinitro benzene (DNP-SG) as well as the cationic amphiphilic chemotherapeutic drug, doxorubicin (DOX). When reconstituted in artificial liposomes, DNP-SG ATPase mediated ATP-dependent, saturable transport of DOX ( $K_m 2.4 \mu M$ ,  $V_{max} 194 \text{ nmol/min/mg}$ ) as well as DNP-SG ( $K_m 36 \mu M$ ,  $V_{max} 433 \text{ nmol/min/mg}$ ). The  $K_m$  for ATP for both substrates was about 2.5 mM. Transport of DOX was competitively inhibited by DNP-SG and vice versa.

=> file medline

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	30.00	35.24
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-1.46	-1.46

FILE 'MEDLINE' ENTERED AT 14:51:24 ON 05 DEC 2005

FILE LAST UPDATED: 3 DEC 2005 (20051203/UP). FILE COVERS 1950 TO DATE.

On December 19, 2004, the 2005 MeSH terms were loaded.

The MEDLINE reload for 2005 is now available. For details enter HELP RLOAD at an arrow prompt (=). See also:

<http://www.nlm.nih.gov/mesh/>  
[http://www.nlm.nih.gov/pubs/techbull/nd04/nd04\\_mesh.html](http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html)

OLDMEDLINE now back to 1950.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2005 vocabulary.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s RLIP76 or RALBP1 or (DNP-SG) or R1P1 or RLIP1  
31 RLIP76  
62 RALBP1  
3965 DNP  
46 DNPS  
3989 DNP

(DNP OR DNPS)  
 2746 SG  
 464 SGS  
 3117 SG  
 (SG OR SGS)  
 93 DNP-SG  
 (DNP(W) SG)  
 61 RIP1  
 1 RLIP1  
 L10 200 RLIP76 OR RALBP1 OR (DNP-SG) OR RIP1 OR RLIP1

=> s ?liposome  
 L11 8620 ?LIPOSOME

=> s ?liposom?  
 L12 31490 ?LIPOSOM?

=> s l12 and l10  
 L13 16 L12 AND L10

=> s l13 not py>2002  
 1725411 PY>2002  
 L14 8 L13 NOT PY>2002

=> s l14 not py>2001  
 2267130 PY>2001  
 L15 5 L14 NOT PY>2001

=> d ibib 1-5

L15 ANSWER 1 OF 5 MEDLINE on STN  
 ACCESSION NUMBER: 2001686403 MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 11732624  
 TITLE: Purification and functional reconstitution of intact  
 ral-binding Gtpase activating protein, RLIP76, in  
 artificial liposomes.  
 AUTHOR: Singhal S S; Singhal J; Cheng J; Pikula S; Sharma R;  
 Zimniak P; Awasthi Y C; Awasthi S  
 CORPORATE SOURCE: Department of Chemistry and Biochemistry, The University of  
 Texas at Arlington, 76019-0065, USA.  
 CONTRACT NUMBER: CA77495 (NCI)  
 GM32304 (NIGMS)  
 SOURCE: Acta biochimica Polonica, (2001) 48 (2) 551-62.  
 Journal code: 14520300R. ISSN: 0001-527X.  
 PUB. COUNTRY: Poland  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 200205  
 ENTRY DATE: Entered STN: 20011205  
 Last Updated on STN: 20020529  
 Entered Medline: 20020528

L15 ANSWER 2 OF 5 MEDLINE on STN  
 ACCESSION NUMBER: 2001354912 MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 11300797  
 TITLE: Functional reassembly of ATP-dependent xenobiotic transport  
 by the N- and C-terminal domains of RLIP76 and  
 identification of ATP binding sequences.  
 AUTHOR: Awasthi S; Cheng J Z; Singhal S S; Pandya U; Sharma R;  
 Singh S V; Zimniak P; Awasthi Y C  
 CORPORATE SOURCE: Department of Chemistry and Biochemistry, The University of  
 Texas at Arlington, 76019-0065, USA.. sawasthi@uta.edu  
 CONTRACT NUMBER: CA 77495 (NCI)



ES09140 (NIEHS)  
GM 32304 (NIGMS)

SOURCE: Biochemistry, (2001 Apr 3) 40 (13) 4159-68.  
Journal code: 0370623. ISSN: 0006-2960.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200106  
ENTRY DATE: Entered STN: 20010625  
Last Updated on STN: 20010625  
Entered Medline: 20010621

L15 ANSWER 3 OF 5 MEDLINE on STN  
ACCESSION NUMBER: 2000417526 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 10924126  
TITLE: Novel function of human RLIP76: ATP-dependent  
transport of glutathione conjugates and doxorubicin.  
AUTHOR: Awasthi S; Cheng J; Singhal S S; Saini M K; Pandya U;  
Pikula S; Bendorowicz-Pikula J; Singh S V; Zimniak P;  
Awasthi Y C  
CORPORATE SOURCE: Department of Chemistry and Biochemistry, The University of  
Texas at Arlington, 76019-0065, USA.. sawasthi@uta.edu  
CONTRACT NUMBER: CA 55589 (NCI)  
CA 77495 (NCI)  
GM 32304 (NIGMS)

SOURCE: Biochemistry, (2000 Aug 8) 39 (31) 9327-34.  
Journal code: 0370623. ISSN: 0006-2960.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200009  
ENTRY DATE: Entered STN: 20000915  
Last Updated on STN: 20000922  
Entered Medline: 20000907

L15 ANSWER 4 OF 5 MEDLINE on STN  
ACCESSION NUMBER: 1999180685 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 10079207  
TITLE: ATP-Dependent colchicine transport by human erythrocyte  
glutathione conjugate transporter.  
AUTHOR: Awasthi S; Singhal S S; Pandya U; Gopal S; Zimniak P; Singh  
S V; Awasthi Y C  
CORPORATE SOURCE: Department of Internal Medicine, The University of Texas  
Medical Branch at Galveston, Galveston, Texas, 77555-1067,  
USA.. sawasthi@utmb.edu  
CONTRACT NUMBER: CA-77495 (NCI)  
ES-09140 (NIEHS)  
GM-32304 (NIGMS)

SOURCE: Toxicology and applied pharmacology, (1999 Mar 15) 155 (3)  
215-26.  
Journal code: 0416575. ISSN: 0041-008X.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199904  
ENTRY DATE: Entered STN: 19990426  
Last Updated on STN: 19990426  
Entered Medline: 19990415

L15 ANSWER 5 OF 5 MEDLINE on STN  
ACCESSION NUMBER: 1998215649 MEDLINE

DOCUMENT NUMBER: PubMed ID: 9548755  
 TITLE: ATP-Dependent human erythrocyte glutathione-conjugate transporter. II. Functional reconstitution of transport activity.  
 AUTHOR: Awasthi S; Singhal S S; Pikula S; Piper J T; Srivastava S K; Torman R T; Bandorowicz-Pikula J; Lin J T; Singh S V; Zimniak P; Awasthi Y C  
 CORPORATE SOURCE: Department of Internal Medicine, The University of Texas Medical Branch, Galveston, Texas, USA.. sawasthi@utmb.edu  
 CONTRACT NUMBER: CA55589 (NCI)  
                   CA63660 (NCI)  
                   GM32304 (NIGMS)  
 SOURCE: Biochemistry, (1998 Apr 14) 37 (15) 5239-48.  
           Journal code: 0370623. ISSN: 0006-2960.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199805  
 ENTRY DATE: Entered STN: 19980520  
               Last Updated on STN: 19980520  
               Entered Medline: 19980514

=> d his

(FILE 'HOME' ENTERED AT 14:45:38 ON 05 DEC 2005)

FILE 'REGISTRY' ENTERED AT 14:46:00 ON 05 DEC 2005  
           E "RLIP76"/CN 25

L1          1 S E4

FILE 'CAPLUS' ENTERED AT 14:46:43 ON 05 DEC 2005

L2          6 S L1  
 L3          42 S ?LIPSOME  
 L4          33727 S ?LIPOSOME  
 L5          48589 S LIPOSOM?  
 L6          48775 S L4 OR L5  
 L7          321 S RLIP76 OR RALBP1 OR (DNP-SG) OR RIP1 OR RLIP1  
 L8          10 S L7 AND L6  
 L9          4 S L8 NOT PY>2002

FILE 'MEDLINE' ENTERED AT 14:51:24 ON 05 DEC 2005

L10         200 S RLIP76 OR RALBP1 OR (DNP-SG) OR RIP1 OR RLIP1  
 L11         8620 S ?LIPOSOME  
 L12         31490 S ?LIPOSOM?  
 L13         16 S L12 AND L10  
 L14         8 S L13 NOT PY>2002  
 L15         5 S L14 NOT PY>2001

=> s l14 not l15

L16         3 L14 NOT L15

=> d ibib 1-3

L16 ANSWER 1 OF 3          MEDLINE on STN  
 ACCESSION NUMBER: 2003084700          MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 12422239  
 TITLE: Functional reconstitution of Ral-binding GTPase activating protein, RLIP76, in proteoliposomes catalyzing ATP-dependent transport of glutathione conjugate of 4-hydroxynonenal.  
 AUTHOR: Sharma Rajendra; Sharma Abha; Yang Yusong; Awasthi Sanjay; Singhal Sharad S; Zimniak Piotr; Awasthi Yogesh C

CORPORATE SOURCE: Department of Human Biological Chemistry and Genetics,  
University of Texas Medical Branch, Galveston, TX  
77555-0647, USA.

CONTRACT NUMBER: CA 77495 (NCI)

GM32304 (NIGMS)

SOURCE: Acta biochimica Polonica, (2002) 49 (3) 693-701.  
Journal code: 14520300R. ISSN: 0001-527X.

PUB. COUNTRY: Poland

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200309

ENTRY DATE: Entered STN: 20030225

Last Updated on STN: 20030906

Entered Medline: 20030905

L16 ANSWER 2 OF 3 MEDLINE on STN

ACCESSION NUMBER: 2003035514 MEDLINE

DOCUMENT NUMBER: PubMed ID: 12545192

TITLE: Transport functions and physiological significance of 76  
kDa Ral-binding GTPase activating protein (RLIP76  
).

AUTHOR: Awasthi Sanjay; Sharma Rajendra; Yang Yusong; Singhal  
Sharad S; Pikula Slawomir; Bendorowicz-Pikula Joanna; Singh  
Shivendra V; Zimniak Piotr; Awasthi Yogesh C

CORPORATE SOURCE: Department of Chemistry and Biochemistry, University of  
Texas at Arlington, Arlington, TX, USA.

CONTRACT NUMBER: CA 55589 (NCI)

CA 77495 (NCI)

GM 32304 (NIGMS)

SOURCE: Acta biochimica Polonica, (2002) 49 (4) 855-67. Ref: 65  
Journal code: 14520300R. ISSN: 0001-527X.

PUB. COUNTRY: Poland

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

(REVIEW, TUTORIAL)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200401

ENTRY DATE: Entered STN: 20030125

Last Updated on STN: 20040106

Entered Medline: 20040105

L16 ANSWER 3 OF 3 MEDLINE on STN

ACCESSION NUMBER: 2002673242 MEDLINE

DOCUMENT NUMBER: PubMed ID: 12433796

TITLE: RLIP76, a novel transporter catalyzing  
ATP-dependent efflux of xenobiotics.

AUTHOR: Awasthi Sanjay; Sharma Rajendra; Singhal Sharad S; Zimniak  
Piotr; Awasthi Yogesh C

CORPORATE SOURCE: Department of Chemistry and Biochemistry, University of  
Texas at Arlington, Arlington, Texas.

CONTRACT NUMBER: CA 77495 (NCI)

GM32304 (NIGMS)

SOURCE: Drug metabolism and disposition: biological fate of  
chemicals, (2002 Dec) 30 (12) 1300-10. Ref: 60  
Journal code: 9421550. ISSN: 0090-9556.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

(REVIEW, TUTORIAL)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200305

ENTRY DATE: Entered STN: 20021116  
Last Updated on STN: 20030514  
Entered Medline: 20030513

=> d ab 1

L16 ANSWER 1 OF 3 MEDLINE on STN

AB Earlier studies from our laboratories have shown that RLIP76, a previously described Ral-binding GTPase activating protein (Jullien-Flores et al., 1995, J. Biol. Chemical 270: 22473), is identical with the xenobiotic transporter DNP-SG ATPase, and can catalyze ATP-dependent transport of glutathione-conjugates as well as doxorubin (Awasthi et al., 2000, Biochemistry, 39: 9327). We have now reconstituted purified bacterially expressed RLIP76 in proteoliposomes, and have studied ATP-dependent uptake of the glutathione conjugate of 4-hydroxynonenal (GS-HNE) by these vesicles. Results of these studies show that RLIP76 reconstituted in proteoliposomes catalyzes ATP-dependent transport of GS-HNE against a concentration gradient. The transport of GS-HNE is saturable with respect to ATP as well as GS-HNE with K(m) values of 1.4mM and 2.5 microM, respectively. These studies demonstrate that RLIP76 mediates active transport of GS-HNE, and are consistent with our previous work showing that RLIP76-mediated efflux of GS-HNE regulates the intracellular concentration of 4-HNE and thereby affects 4-HNE mediated signaling.

=> file pctfull

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.93	38.17
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-1.46

FILE 'PCTFULL' ENTERED AT 14:54:02 ON 05 DEC 2005  
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FILE LAST UPDATED: 1 DEC 2005 <20051201/UP>  
MOST RECENT UPDATE WEEK: 200547 <200547/EW>  
FILE COVERS 1978 TO DATE

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>>> KWIC format free of charge - SEE NEWS >>>

>>> PLEASE BE AWARE OF THE NEW IPC REFORM IN 2006, SEE  
[http://www.stn-international.de/stndatabases/details/ipc\\_reform.html](http://www.stn-international.de/stndatabases/details/ipc_reform.html) <

=> s RLIP76 or RALBP1 or (DNP-SG) or RIP1 or RLIP1

17 RLIP76  
19 RALBP1  
1876 DNP  
25 DNPS  
1897 DNP  
(DNP OR DNPS)  
12529 SG  
944 SGS  
13265 SG  
(SG OR SGS)  
6 DNP-SG  
(DNP(W) SG)  
56 RIP1

```

1 RLIP1
L17      94 RLIP76 OR RALBP1 OR (DNP-SG) OR RIP1 OR RLIP1

=> s 117/ab
      0 RLIP76/AB
      0 RALBP1/AB
      17 DNP/AB
      173 SG/AB
      10 SGS/AB
      181 SG/AB
          ((SG OR SGS)/AB)
      0 DNP-SG/AB
          ((DNP(W)SG)/AB)
      0 RIP1/AB
      0 RLIP1/AB
L18      0 (RLIP76/AB OR RALBP1/AB OR (DNP-SG/AB) OR RIP1/AB OR RLIP1/AB)

=> s 117/clm
      1 RLIP76/CLM
      1 RALBP1/CLM
      168 DNP/CLM
      2780 SG/CLM
      1 DNP-SG/CLM
          ((DNP(W)SG)/CLM)
      2 RIP1/CLM
      0 RLIP1/CLM
L19      5 (RLIP76/CLM OR RALBP1/CLM OR (DNP-SG/CLM) OR RIP1/CLM OR RLIP1/CLM)

```

```

=> ?liposom?
?LIPOSOM? IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

```

```

=> s ?liposom?
L20      40497 ?LIPOSOM?

```

```

=> s 120/clm
LEFT TRUNCATION IGNORED FOR '?LIPOSOM?' FOR FILE 'PCTFULL'
L21      4950 (LIPOSOM?/CLM)
Left truncation is not valid in the specified search field in the
specified file. The term has been searched without left truncation.
Examples: '?TERPEN?' would be searched as 'TERPEN?' and '?FLAVONOID'
would be searched as 'FLAVONOID.'

```

If you are searching in a field that uses implied proximity, and you used a truncation symbol after a punctuation mark, the system may interpret the truncation symbol as being at the beginning of a term. Implied proximity is used in search fields indexed as single words, for example, the Basic Index.

```

=> s 121 and 119
L22      0 L21 AND L19

=> s proteoliposom?
L23      430 PROTEOLIPOSOM?

=> s 123 and 119
L24      0 L23 AND L19

=> s 117 and 124
L25      0 L17 AND L24

```

=>

---Logging off of STN---

=>

Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	3.15	41.32
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-1.46

STN INTERNATIONAL LOGOFF AT 14:56:05 ON 05 DEC 2005